

**COBITIS LINNAEUS, 1758 (OSTEICHTHYES, CYPRINIFORMES):
PROPOSED DESIGNATION OF *COBITIS TAENIA* LINNAEUS,
1758 AS TYPE SPECIES AND REQUEST FOR A RULING ON
THE STEM OF THE FAMILY-GROUP NAME COBITIDIDAE
SWAINSON, 1839. Z.N.(S.)2566**

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In a study of cobitid fish systematics, I uncovered a nomenclatural problem concerning the type species of *Cobitis* Linnaeus, 1758. In accordance with Article 41 of the Code, I am referring this case to the International Commission on Zoological Nomenclature together with a proposal to preserve nomenclatural stability.

2. *Cobitis* Linnaeus, 1758 (p. 303) originally contained four nominal species: *C. anableps*, *C. barbatula*, *C. taenia* and *C. fossilis*.

3. Bleeker (1863a, pp. 362, 364) designated *C. taenia* as type species of *Cobitis* and this has been widely accepted since then. Unfortunately, most workers have overlooked the fact that Blyth (1860, p. 170) designated *C. barbatula* as type species of *Cobitis*. Of the remaining originally included species in *Cobitis*, *C. anableps* is now placed in the family ANABLEPIDAE and *C. fossilis* remains in the family COBITIDAE Swainson, 1839 (p. 190), (type genus *Cobitis* Linnaeus, 1758), but is not involved with this problem.

4. *Cobitis barbatula* is usually considered either a member of *Nemacheilus* Bleeker, 1863a (type species *Cobitis fasciata* Valenciennes in Cuvier & Valenciennes, 1846, by original designation) *sensu lato* or in *Orthrias* Jordan & Fowler, 1903 (type species *Orthrias oreas* Jordan & Fowler, 1903, by monotypy), a generic name whose use presents several taxonomic problems. *Nemacheilus sensu lato* includes some 300 nominal species and is currently being revised. It is type genus of the sub-family NEMACHEILINAE Regan, 1911.

5. Blyth's 1860 type species designation corresponded to the thinking at that time, when loaches with suborbital spines (now called *Cobitis*) were called *Acanthopsis* Agassiz, 1832 and those without spines (now called *Nemacheilus sensu lato*) were called *Cobitis*. To compound matters Blyth's designation appeared in a little-known work, while Bleeker's appeared again (1863b) in his *Atlas Ichthyologique des Indes Orientales Néerlandaises*. Bleeker's designation was subsequently adopted by Günther (1868) and quickly became widely accepted.

6. Acceptance of Blyth's designation of *Cobitis barbatula* as type species of *Cobitis* threatens stability for the following reasons:

- (a) the name *Cobitis* would have to be used for a large 'catch-all' genus which will later undergo drastic revision (*Nemacheilus s.l.*) or for a genus whose taxonomic limits are badly defined (*Orthrias*);
- (b) the species currently placed in *Cobitis* would have to be called

Acanthophthalmus van Hasselt, 1823 (p. 133, type species, *Cobitis taenia* Linnaeus, 1758, by monotypy). This will create confusion as a related genus in the same subfamily has the widely used name *Acanthophthalmus sensu* Bleeker, 1859 even though this name is an incorrect subsequent spelling and therefore unavailable under the Code. While this usage continues the risk of confusion remains;

- (c) the *Cobitis taenia*-like fishes would have to be called ACANTHOPSIDAE Heckel & Kerr, 1858, instead of COBITIDAE and the *C. barbatula*-like fishes would have to be called COBITIDAE instead of NEMACHEILINAE;
- (d) HOMALOPTERIDAE, of which NEMACHEILINAE is a subfamily, would become a subfamily of COBITIDAE.

7. A further cause of confusion in this and many other groups of fishes was the action of Steyskal (1980) who showed that the correct orthography of a family-group name based on *Cobitis* is COBITIDIDAE. This spelling had virtually never been used, while COBITIDAE was and still is widely used. COBITIDAE is the third most cited family-group name for Palaearctic and Oriental fishes. Fortunately, under Article 29(d) of the amendments to the 2nd edition of the Code usage of the spelling COBITIDAE could legitimately continue (Kottelat, 1984). However, under the present Code (1985) this is no longer the case and so, considering the very long usage enjoyed by this spelling, I suggest COBITIDAE be retained. Members of the family include *Cobitis taenia*, *Misgurnus fossilis* and *M. anguillicaudatus* which have been the subject of innumerable papers on morphology, histology, physiology, biochemistry and toxicology. The change to COBITIDIDAE will create confusion for non-systematists, non-ichthyologists and particularly for those using electronic databases or those who did not learn classical languages. I believe that stability of usage should prevail over strict adherence to Greek or Latin grammar.

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to set aside all previous designations of type species for the nominal genus *Cobitis* Linnaeus, 1758, and to designate *Cobitis taenia* Linnaeus, 1758 as type species;
- (2) to rule under the plenary powers that the stem of the generic name *Cobitis* Linnaeus, 1758 is, for the purpose of Article 29a, *Cobit-*;
- (3) to place on the Official List of Generic Names in Zoology the name *Cobitis* Linnaeus, 1758 (gender: feminine), type species by designation under the plenary powers in (1) above, *Cobitis taenia* Linnaeus, 1758;
- (4) to place on the Official List of Specific Names in Zoology the name *taenia* Linnaeus, 1758, as published in the binomen *Cobitis taenia* (specific name of the type species of *Cobitis* Linnaeus, 1758);

- (5) to place on the Official List of Family-group Names in Zoology the name COBITIDAE Swainson, 1839 (type genus *Cobitis* Linnaeus, 1758).

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